

U.S. ENVIRONMENTAL PROTECTION AGENCY  
 POLLUTION/SITUATION REPORT  
 Mahan Mercury ER - Removal Polrep  
 Initial Removal Polrep



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
 Region V**

**Subject:** POLREP #1  
 Initial POLREP  
 Mahan Mercury ER

**Hazel Park, MI**  
**Latitude:** nonresponsive **Longitude:** nonresponsive

**To:** Mark Johnson, ATSDR  
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 Joe DeGrazia, MDEQ  
 Gary Sharp, Oakland County HazMat  
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 Mike Pousak, OC Homeland Security

**From:** Tricia Edwards, OSC

**Date:** 2/17/2014

**Reporting Period:** 2/16/14-2/17/2014

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>	<b>Contract Number:</b>	
<b>D.O. Number:</b>	<b>Action Memo Date:</b>	
<b>Response Authority:</b> CERCLA	<b>Response Type:</b>	Emergency
<b>Response Lead:</b> EPA	<b>Incident Category:</b>	Removal Action
<b>NPL Status:</b> Non NPL	<b>Operable Unit:</b>	
<b>Mobilization Date:</b> 2/17/2014	<b>Start Date:</b>	2/17/2014
<b>Demob Date:</b>	<b>Completion Date:</b>	
<b>CERCLIS ID:</b>	<b>RCRIS ID:</b>	
<b>ERNS No.:</b>	<b>State Notification:</b>	

FPN#:

Reimbursable Account #:

**1.1.1 Incident Category**

Emergency Response

**1.1.2 Site Description**

Oakland County HazMat Team notified the NRC of a residential mercury spill Sunday evening, February 16, 2014 (NRC #1074194). The homeowner was attempting to change a light fixture when debris fell down on him. Elemental mercury was present in the debris.

Hazel Park Fire Department (FD) and Oakland County HazMat responded to the residence. Visible mercury in small puddles and beads were observed in a void space between the upstairs floor and the ceiling of the downstairs room. Beads were also observed on the floor in the mud room and on the steps.

EPA responded to the site on Sunday evening to assess the site, as well as meet with the homeowner to get access to the property.

EPA, ERRS, and START met with Oakland County HazMat, Hazel Park FD, and the homeowners on site on Monday, February 17, 2014 to explain the plan and start the clean up.

**1.1.2.1 Location**

Non  
responsive

**1.1.2.2 Description of Threat**

Elemental Mercury

Mercury poses a threat through inhalation, ingestion, and direct contact routes of exposure, and can result in severe nausea, vomiting, abdominal pain, bloody diarrhea, kidney and liver damage, and even death. Metallic mercury is highly toxic when inhaled, and attacks the central nervous system by destroying neurons.

Mercury is a characteristic waste under the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. 6901 *et seq.*, as amended, and 40 CFR 261.24. Mercury exhibits the characteristics of toxicity D009, and is therefore a hazardous substance under Section 101(14) of CERCLA, 42 U.S.C. 9601(14).

**1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

Elemental mercury was visible in the void space between the upstairs floor and the downstairs ceiling. When the light fixture was removed and the mercury fell from the ceiling, beads were then identified on the floor in the mud room and the laundry room. Upon further investigation, mercury beads were visible on the stairs.

**2. Current Activities****2.1 Operations Section****2.1.1 Narrative**

The homeowner was attempting to change out a light fixture in the mud room when he dislodged the existing light fixture, debris fell down on him. Elemental mercury was present in the debris that fell from the ceiling. The homeowner disrobed in the adjoining laundry room most of his clothing and showered. He placed his shirt on the comforter in the bedroom.

The homeowner attempted to clean up the mercury beads with a damp paper towel. The paper towel was placed in a plastic bag. He also started to vacuum the mercury with the hose on the vacuum. Concerned about his exposure and that of his family, the homeowner contacted Pollution Control. Hazel Park Fire Department (HPFD) responded to the residence. Oakland County HazMat (OC HazMat) team

was dispatched to the residence to assess the site.

The family was directed to leave the premises due to the potential contamination. The furnace was turned down to the lowest setting. The contaminated clothing and the comforter were bagged and set outside.

The HazMat team collected the visible mercury on the floor of the mud room and on the steps leading upstairs. The mercury was containerized and staged outside.

### 2.1.2 Response Actions to Date

EPA, ERRS, and START mobilized to the site on Monday, February 17, 2014.

ERRS started by setting up a plastic sheeting tent inside of the garage. This area was constructed so that items from inside the house could be heated and screened for mercury contamination.

START conducted the initial entry to photo document the area. Once that was completed, ERRS entered the area and bagged up all of the items in the mud room and the laundry room. The bagged items were staged in the garage and heated for later screening.

The ERRS crew then used plastic sheeting to separate the suspected area of contamination from the remainder of the house. Plastic sheeting was hung in the doorway separating the laundry room and the kitchen. This area became the 'Exclusion Zone'. ERRS then started vacuuming the mud room, laundry room, stairwell, and the 'void space' above the ceiling.

START and ERRS worked together to screen a total of twenty bags of consolidated items that were removed from the mud room and laundry room. The bags were segregated based on readings on the Lumex. Ten of the bags had mercury levels below 10,000 ng/m<sup>3</sup>, with a range between 1,400 and 8,800 ng/m<sup>3</sup>. Nine bags had mercury levels above 10,000 ng/m<sup>3</sup>, with a range between 17,000 and 74,000 ng/m<sup>3</sup>. One bag had a mercury range between 8,600 and 11,000 ng/m<sup>3</sup>. All of the bags with a reading greater than 10,000 ng/m<sup>3</sup> were staged outside for disposal.

START also conducted a preliminary screening of the remaining rooms on the main floor. The main floor outside of the exclusion zone consists of the kitchen, bathroom, living room, dining room, and a bedroom. Readings were taken at the floor level, breathing zone (child) and breathing zone (adult). The readings ranged from 865 to 1,333 ng/m<sup>3</sup>.

Upon completion of the vacuuming, START entered the Exclusion Zone with the Lumex to screen the area. Readings in the void space exceed 65,000 ng/m<sup>3</sup>. It was decided that the ceiling would need to be removed. ERRS lined the floor and stairwell with plastic sheeting. Once the plastic sheeting was secured, the ceiling was removed. The ceiling was constructed of wooden planks. The planks were bagged and staged outside. The entire area was then vacuumed again with the Merc-Vac.

START then re-screened the Exclusion Zone. The ceramic tile floor in the mud room exceeded 48,000 ng/m<sup>3</sup>. Some of the grout in the mud room was broken or missing. The linoleum floor in the laundry room exceeded 24,000 ng/m<sup>3</sup>. Prior to leaving for the night, the ERRS applied an HgX wash on the floor.

### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

No enforcement activities anticipated. Although, the project will be reviewed by the enforcement team.

### 2.1.4 Progress Metrics

<i>Waste Stream</i>	<i>Medium</i>	<i>Quantity</i>	<i>Manifest #</i>	<i>Treatment</i>	<i>Disposal</i>

[illegible]

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

The fans will be set up in the mud room and laundry room to draw the air from the remainder of the house to then be exhausted to the outside.

Heating and ventilating the residence.

Re-screening the home with the Lumex.

Removal of contaminated flooring, if necessary.

#### 2.2.1.1 Planned Response Activities

### 2.2.1.2 Next Steps

### 2.2.2 Issues

## 2.3 Logistics Section

No information available at this time.

## 2.4 Finance Section

### 2.4.1 Narrative

START and ERRS were activated to respond to the response.

### Estimated Costs \*

	Budgeted	Total To Date	Remaining	% Remaining
<b>Extramural Costs</b>				
ERRS - Cleanup Contractor	\$20,000.00	\$0.00	\$20,000.00	100.00%
<b>Intramural Costs</b>				
<b>Total Site Costs</b>	\$20,000.00	\$0.00	\$20,000.00	100.00%

\* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

## 2.5 Other Command Staff

### 2.5.1 Safety Officer

OSC

### 2.5.2 Liaison Officer

OSC

### 2.5.3 Information Officer

OSC

**3. Participating Entities**

**3.1 Unified Command**

N/A

**3.2 Cooperating Agencies**

US EPA

Hazel Park Fire Department

Oakland County HazMat

**4. Personnel On Site**

US EPA - 1

START (Weston) - 1

ERRS - 3 (ER)

Oakland County HazMat - 1

**5. Definition of Terms**

US EPA - United States Environmental Protection Agency

START - Superfund Technical Assistance and Response Team

ERRS - Emergency and Rapid Response Services

HazMat - Hazardous Materials

**6. Additional sources of information**

No information available at this time.

**7. Situational Reference Materials**

No information available at this time.